

## **DRAWING AMENDMENTS**

Corrected drawings in compliance with 37 C.F.R. § 1.121(d) are provided in Attachment

A.

Attachment A: Replacement sheets 1-9.

## REMARKS

### I. Substitute Specification Provided Under 37 C.F.R. § 1.125

The specification has been amended to eliminate minor errors and to reflect the numbering changes to the drawings as detailed in Section II below. A substitute specification with markings showing all changes is provided in Attachment B. A clean version of the substitute specification is provided in Attachment C. The changes to the substitute specification do not introduce any new matter.

### II. Drawings

Corrected drawings in compliance with 37 C.F.R. § 1.121(d) are provided in Attachment

A. The attached drawing sheets also include the following changes of reference numerals in Figs. 3, 4A, 4B, 5 and 7:

Old Ref.	New Ref.	Element	Fig.
108	Deleted	Ground	3
450	449	N-channel controlling circuitry	5
452	451	Output end	5
460	459	MRAM circuitry	5
462	464	Current output	5
720	715	NEQUAL' signal	7
720	716	Standard core circuitry	4A
722	717	Current reference	4A
724	723	Sense current driver P-channel transistors	4B

These changes have been made to ensure that the drawings fully comply with 37 C.F.R. § 1.84(p)(4). These changes are also reflected in the substitute specification in Attachment B.

### **III. Claim Amendment**

Claim 1 is amended to correct a minor drafting error. The claim now correctly recites that the variable analog control circuitry is connected to receive the reference current control signal from the current reference circuit. The original version omitted the word "current" from the reference current control signal limitation.

### **IV. Rejections Under 35 U.S.C. § 102(e)**

The Office Action rejected claims 1 and 2 as being anticipated by U.S. Pat. Pub. No. 2004/0085122 issued to Perner et al. ("Perner"). The Applicant respectfully traverses the rejection on the grounds that Perner does not disclose the claimed variable analog control circuitry of claim 1. In particular, the claimed variable analog control circuitry does not read on the voltage sensor 240 of Perner, as alleged in the Office Action, because (a) the voltage sensor 240 does not receive a reference current control signal from the current source 220; and (b) the voltage sensor 240 does not generate a word current reference signal and a source current reference signal as claimed in claim 1.

#### **a. Perner's Voltage Sensor 240 Does Not Receive A Reference Current Control Signal**

The Office Action first states that the claimed current reference circuit of claim 1 reads on the current source 220 of Fig. 2, and that the voltage sensor 240 receives the reference control signal from the current source. Office Action, pg. 3. However, as shown in Fig. 2 of Perner, the voltage sensor does not receive any reference control signal from the current source 220. The only common signal between the current source 220 and the voltage sensor 240 is the supply voltage VDD. The supply voltage VDD, however, is not a "reference current control signal"

provided by the current source 220, nor is the supply voltage received by the voltage sensor 240 from the current source 220.

Rather than receive a control signal from the current source as claimed in claim 1, the voltage sensor 240 of Perner only provides a control signal to the current source 220:

FIG. 2 shows a differential amplifier 210 and corresponding current source 220 according to an embodiment of the invention. The current source 220 of this embodiment provides a differential amplifier bias current (ISOURCE) to a common source node 230 of the differential amplifier 210. A voltage sensor 240 senses variations of a voltage potential of a power supply (VDD) associated with the current source 220. Voltage potential variations sensed by the voltage sensor 240 control a magnitude of the differential amplifier bias current. The current source 220 is adjustable. That is, the current flowing to or from the current source 220 can be adjustably varied.

Perner, para. 29 (emphasis added). Clearly, then, the voltage sensor 240 of Perner does not meet the claimed variable analog control circuitry of claim 1, as it does not receive a reference current control signal from the current source 220.

For this reason alone, the Applicant respectfully submits that the 35 U.S.C. § 102(e) rejection of claims 1 and 2 over Perner should be withdrawn.

**b. Perner's Voltage Sensor 240 Does Not Generate the Claimed Word Current Reference Signal and Source Current Reference Signal**

The voltage sensor 240 of Perner controls only the magnitude of the differential amplifier bias current. Perner, para. 29. In particular, the voltage sensor provides such control by controlling a back gate bias of current mirror transistors. Perner, Figs. 6, 7; paras. 51-56. The common control voltage provided to the back gate control terminals 712 and 722 thus only controls the differential amplifier bias current, and such control is provided independent of the current output by the current source. Thus the control signal generated by the voltage sensor 240

cannot constitute the claimed generation of "a word current reference signal in response to the reference current control signal" and "a source current reference signal in response to the reference current control signal" as claimed in claim 1.

For this additional reason alone, the Applicant respectfully submits that the 35 U.S.C. § 102(e) rejection of claims 1 and 2 over Perner should be withdrawn.

**V. Allowable Subject Matter**

The finding of allowable subject matter for claims 3-24 is appreciated. The claims are not amended in response to the objection, however, as it is believed that claims 1 and 2 are allowable for the reasons stated in Section IV above.

**VI. Conclusion**

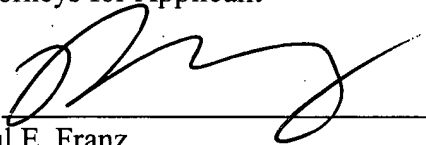
The Applicant respectfully submits that all pending claims are in condition for allowance and respectfully requests that the Examiner issue a Notice of Allowance in due course.

The Commissioner is hereby authorized to charge any additional fees and credit any overpayment associated with this response to Jones Day Deposit Account No. 501432, ref: 783403-605020.

Respectfully submitted,

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